

12/16/2013

Mr. Piper Roelen
Landau Associates, Inc.
130 2nd Avenue South

Edmonds WA 98020

Project Name: Heaven's Supply

Project #: 583002.050.051

Workorder #: 1312212

Dear Mr. Piper Roelen

The following report includes the data for the above referenced project for sample(s) received on 12/13/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1312212

Work Order Summary

CLIENT: Mr. Piper Roelen
Landau Associates, Inc.
130 2nd Avenue South
Edmonds, WA 98020

BILL TO: Mr. Piper Roelen
Landau Associates, Inc.
130 2nd Avenue South
Edmonds, WA 98020

PHONE: 800-552-5957

P.O. # 583002.050.051

FAX: 425-778-6409

PROJECT # 583002.050.051 Heaven's Supply

DATE RECEIVED: 12/13/2013

CONTACT: Kelly Buettner

DATE COMPLETED: 12/16/2013

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	7013 Greenwood-Basement:121213	Modified TO-15 SIM	3.1 "Hg	5.1 psi
02A	7013 Greenwood-Floor:121213	Modified TO-15 SIM	5.9 "Hg	5 psi
03A	7013 Greenwood-Tower:121213	Modified TO-15 SIM	3.7 "Hg	5.2 psi
04A	Heavens Supply-OD:121213	Modified TO-15 SIM	0.4 psi	5 psi
05A	Lab Blank	Modified TO-15 SIM	NA	NA
06A	CCV	Modified TO-15 SIM	NA	NA
07A	LCS	Modified TO-15 SIM	NA	NA
07AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY:



Technical Director

DATE: 12/16/13

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 956

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE
Modified TO-15 SIM
Landau Associates, Inc.
Workorder# 1312212

Four 6 Liter Summa Canister (SIM Certified) samples were received on December 13, 2013. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

Despite the use of flow controllers for sample collection, the final canister vacuums for sample Heavens Supply-OD:121213 was measured at ambient pressure in the field. These ambient pressure readings were confirmed by the laboratory upon sample receipt.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: 7013 Greenwood-Basement:121213

Lab ID#: 1312212-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0045	0.013	0.024	0.069
Tetrachloroethene	0.030	0.071	0.20	0.48

Client Sample ID: 7013 Greenwood-Floor:121213

Lab ID#: 1312212-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0050	0.013	0.027	0.070
Tetrachloroethene	0.033	0.069	0.23	0.47

Client Sample ID: 7013 Greenwood-Tower:121213

Lab ID#: 1312212-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0046	0.0084	0.025	0.045
Tetrachloroethene	0.031	0.044	0.21	0.30

Client Sample ID: Heavens Supply-OD:121213

Lab ID#: 1312212-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.0039	0.028	0.021	0.15
Tetrachloroethene	0.026	0.74	0.18	5.0



Air Toxics

Client Sample ID: 7013 Greenwood-Basement:121213

Lab ID#: 1312212-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	e121315sim	Date of Collection:	12/12/13 1:10:00 PM
Dil. Factor:	1.50	Date of Analysis:	12/13/13 07:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.038	Not Detected
Trichloroethene	0.0045	0.013	0.024	0.069
Tetrachloroethene	0.030	0.071	0.20	0.48
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: 7013 Greenwood-Floor:121213

Lab ID#: 1312212-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	e121316sim	Date of Collection:	12/12/13 1:14:00 PM
Dil. Factor:	1.67	Date of Analysis:	12/13/13 08:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Trichloroethene	0.0050	0.013	0.027	0.070
Tetrachloroethene	0.033	0.069	0.23	0.47
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: 7013 Greenwood-Tower:121213

Lab ID#: 1312212-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	e121317sim	Date of Collection: 12/12/13 1:26:00 PM
Dil. Factor:	1.54	Date of Analysis: 12/13/13 09:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
Trichloroethene	0.0046	0.0084	0.025	0.045
Tetrachloroethene	0.031	0.044	0.21	0.30
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: Heavens Supply-OD:121213

Lab ID#: 1312212-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	e121318sim	Date of Collection: 12/12/13 1:35:00 PM
Dil. Factor:	1.30	Date of Analysis: 12/13/13 10:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013	Not Detected	0.033	Not Detected
Trichloroethene	0.0039	0.028	0.021	0.15
Tetrachloroethene	0.026	0.74	0.18	5.0
cis-1,2-Dichloroethene	0.026	Not Detected	0.10	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1312212-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	e121314sima	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 07:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Trichloroethene	0.0030	Not Detected	0.016	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1312212-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	e121302sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 09:15 AM

Compound	%Recovery
----------	-----------

Vinyl Chloride	88
Trichloroethene	75
Tetrachloroethene	84
cis-1,2-Dichloroethene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 1312212-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	e121303sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 09:56 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	90	70-130
Trichloroethene	78	70-130
Tetrachloroethene	86	70-130
cis-1,2-Dichloroethene	108	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCSD

Lab ID#: 1312212-07AA

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	e121304sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/13/13 10:38 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	90	70-130
Trichloroethene	77	70-130
Tetrachloroethene	85	70-130
cis-1,2-Dichloroethene	107	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	103	70-130